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JUN 1 1997  
Dkt. 37690-II-1-PCT-USA/JPW/AKC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Gary Beaudry and Paul J. Maddon  
Serial No. : 08/485,163 Examiner: K. Brown  
Filed : June 7, 1995 Group Art Unit: 1812  
For : CD4 GAMMA2 AND CD4-IgG2 CHIMERAS

1185 Avenue of the Americas  
New York, New York 10036  
May 29, 1997

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Assistant Commissioner for Patents  
Washington, D.C. 20231

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INFORMATION DISCLOSURE STATEMENT

In accordance with the duty of disclosure under 37 C.F.R. §1.56, applicants direct the Examiner's attention to the following references, which are listed on the accompanying form PTO-1449 (Exhibit 1), copies of which are hereto attached as Exhibits (2-28), respectively.

1. Uhr, et al., U.S. Patent No. 4,664,911, issued May 12, 1987 (Exhibit 2);
2. Maddon, International Publication No. WO 88/01304, published February 25, 1989 (Exhibit 3);
3. Fisher, et al. International Publication No. WO 89/01940, published March 9, 1989 (Exhibit 4);
4. Reinherz, et al., International Publication No. WO 89/03222, published April 20, 1989 (Exhibit 5);
5. Seed, International Publication No. WO 89/06690, published July 27, 1989 (Exhibit 6);
6. Capon, et al., European Patent Publication No. 0 314 317, 06/19/1997 AGREED issue date 08/485,163 3 230.00 op 1989 (Exhibit 7);  
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7. Berger, et al. International Publication No. WO 90/01035, published February 8, 1990 (Exhibit 8);
8. Roche, European Patent Publication No. 0 394 827, issued October 31, 1990 (Exhibit 9);
9. Medarex, International Publication No. WO 91/00360, published January 20, 1991 (Exhibit 10);
10. Beaudry, et al. International Publication No. WO 92/13559, published August 20, 1992 (Exhibit 11);
11. Allaway, Graham P. et al., (1993) Synergistic Inhibition of HIV-1 Envelope-Mediated Cell Fusion by CD4-Based Molecules in Combination with Antibodies to gp120 or gp41, AIDS Research and Human Retroviruses, Volume 9, No. 7 581-587 Exhibit 12);
12. Allaway, Graham P. et al., (1995) Expression and Characterization of CD4-IgG<sub>2</sub>, a Novel Heterontetramer That Neutralizes Primary HIV Type 1 Isolates, AIDS Research and Human Retroviruses, Volume 11, No. 5, 533-539 (Exhibit 13)
13. Auffray, C., et al. (1991) CD4-targeted immune intervention: a strategy for the therapy of AIDS and autoimmune disease, Tibtech Volume 9:124-131 (Exhibit 14)
14. Bryn, R.A. et al. (1990) Biological properties of CD4 Immunoadhesin, Nature, Volume 344:667-670 (Exhibit 15);
15. Chamow, S.M. et al. (1990) Enzymatic Cleavage of a CD4 Immunoadhesin generates Crystallizable Biologically Active FD-Like Fragments, Biochemistry, Volume 29, No. 42:9885-9891 (Exhibit 16);

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16. Chowdhury, et al. (1991) Evaluation of anti-human Immunodeficiency Virus Affect of Recombinant CD4-Immunoglobulin In-Vitro: A good candidate for AIDS treatment, *Microbiol. Immunol.*, Volume 180, No. 4:183-192 (Exhibit 17);
17. Fahey, J.L. and Schooley, R. (1992) Status of immune-based therapies in HIV infection and AIDS, *Clin exp. Immunol.*, Volume 88:1-5 (Exhibit 18);
18. Madden, et al. (1985) The Isolation and Nucleotide Sequence of a cDNA Encoding the T Cell Surface Protein T4: A new member of the Immunoglobulin Gene Family, *Cell*, Volume 42:93-104 (Exhibit 19);
19. Morrison, S.L. et al. (1984) Chimeric Human Antibody Molecules: Mouse Antigen-binding domains with Human Constant Region Domains, *Proc. Nat. Acad. Sci.*, Volume 81:6851-6855 (Exhibit 20);
20. Murray, J.L. et al. (1985) Radioimaging in Malignant Melanoma with <sup>111</sup>In-Labeled Monclonal Antibody 96.5" *Cancer Research*, Vol. 45:2376-2381 (Exhibit 21);
21. Pastan, I. et al. (1989) Pseudomonas Exotoxin: Chimeric Toxins, *J. Biological Chemistry*, Volume 264, No. 26:15157-15160 (Exhibit 22);
22. Pastan, I. et al. (1991) Recombinant Toxins for Cancer Treatment, *Science*, Volume 254:1173-1177 (Exhibit 23);
23. Till, M.A. et al. (1988) HIV-Infected Cells are Killed by rCD4-Ricin A Chain, *Science*, Volume 242:1166-1168 (Exhibit 24);

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24. Traunecker, A. et al. (1989) Highly efficient Neutralization of HIV with Recombinant CD4-Immunoglobin Molecules, *Nature*, Volume 339:68-70 (Exhibit 25);
25. Zettlmeissl, G. et al. (1990) Expression and Characterization of Human CD4:Immunoglobin Fusion Proteins, *DNA and Cell Biology*, Volume 9, No. 5:347-353 (Exhibit 26);

Applicants also attach as Exhibit 27 a copy of the PCT Search Report for PCT Application No. PCT/US92/01143, filed February 10, 1992 and as Exhibit 28 a copy of the Supplementary European Search Report for European Patent Application (Publication No. 92907272). The PCT and European applications correspond to the above-identified application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee, other than the enclosed \$230.00 fee for submission of an Information Disclosure Statement under C.F.R. §1.97(c), is deemed necessary in connection with the filing of this Information Disclosure Statement.

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However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

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Sir:

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